Soldiers

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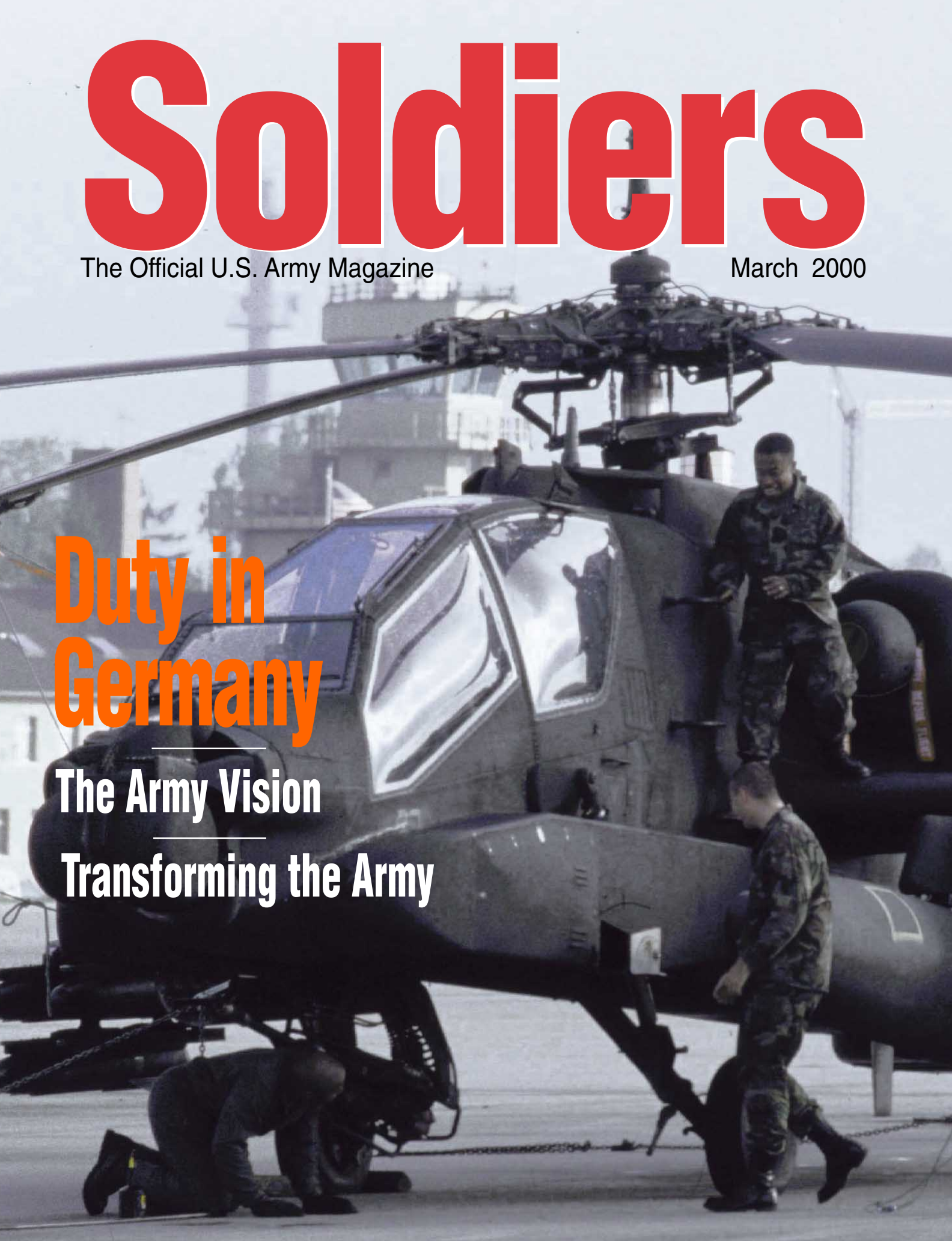
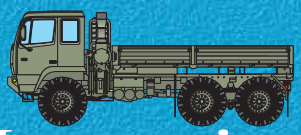


Duty in Germany

The Army Vision

Transforming the Army



Improving the FMTV

Fitting truck cabs with consoles and other components is one of the final assembly steps.

A1 version because of its hydraulics and electronics. But the new Integrated Electronic Technical Manual will tell them what to repair.

"And every major Army installation has a field service person who can answer questions and troubleshoot anything that mechanics at the unit and depot level can't," Hauser said.

In December, TACOM automotive maintenance technician CW3 Rod Rowley and two soldiers from TACOM's Maintenance and Procedures shop were at the Sealy plant to validate the integrity of the CD-ROM-based IETM.

The maintenance demonstration is part of the Army's procurement process, Rowley said. "Soldiers who will maintain the A1 model using the IETM go through a selective list of procedures to see if they can maintain the vehicle without contractor intervention."

"We're proud of the fact that our improved vehicle has proven operational more than 98 percent of the time," Hauser said. "It says our field-service people are working closely with soldiers, and parts are getting to the field quickly. Bottom line is, comparing the old Army truck to the FMTV is like comparing a Model T to a BMW. There is no comparison." □

Soldiers and the FMTV: Working

Story and Photos by Heike Hasenauer

MORE than 7,600 original-model Family of Medium Tactical Vehicle trucks, known as the A0 models, have been delivered to units Armywide since January 1996 as part of a $1.4 billion, five-year contract with the Stewart and Stevenson Company of Houston, Texas.

The A0 trucks began replacing the Army's aging, 30-year-old fleet of 2.5-ton and 5-ton trucks, whose parts were becoming obsolete, said CW5 Buster Simmons Jr., chief of U.S. Army Special Operations Command's Materiel Maintenance Center at Fort Bragg, N.C.

"Parts were no longer being manufactured," he said, "so mainte-

A contractor employee at Fort Bragg's Materiel Management Center works on the driveshaft of an FMTV.

Out the Kinks

Ease of access to critical systems is one of the FMTV's best features, according to soldiers in the field.

nance and repair costs were high." Additionally, the old trucks didn't comply with 1998 Environmental Protection Agency standards.

The FMTVs, all automatic, come in 14 variations of 2.5-ton cargo and van models and 5-ton cargo, tractor, van, wrecker, tanker and dump-truck models.

Eighty percent commonality of parts — same engines, transmissions, drivelines, power trains, tires, cabs — in the new trucks is expected to save the Army millions of dollars in maintenance costs. Lighter-weight construction will cut fuel costs dramatically, too, Army officials said.

The vehicle's cab-over design — in which engine, fluids and hydraulics are all accessible in one place, under the cab — makes regular maintenance much easier, said Stewart and Stevenson spokesman Paul Justice.

Justice said the FMTV program initially experienced some bad press following 13 accidents involving A0-model trucks. One of the accidents resulted in a rollover attributed to a driveline design flaw.

A March 1998 safety message to drivers noted that the vehicles can operate at fairly high highway speeds. But at the 45- to 58-mph range, they found a resonance or vibration in the engine-transmission-driveshaft combination. The vibration stressed the truck's u-joints, which could cause the driveshaft to fail.

"Our platoon has 12 original-model FMTV M-1083 5-ton trucks and four M-1088 tractors," said SGT Ellhue Bowles, a motor transportation operator with the 528th Special Operations Support Battalion at Fort Bragg.

"Before the recall, we were allowed to operate the vehicles at 55 mph, and we didn't have any real problems. When the 'safety gram' came down because of the vehicle mishaps, we had to drop our speed to 30 mph. That was 18 months ago."

Stewart and Stevenson subcontractors continue to upgrade A0-model FMTVs to reinforce the vehicles' drivelines and u-joints. Besides the company's own on-site retrofit facility, co-located with its assembly facility in Sealy, Texas, retrofit centers are located throughout the Army.

In December three were operating

CW5 Buster L. Simmons Jr., chief of Army Special Operations Command's Materiel Management Center, confers with mechanics at a Fort Bragg FMTV retrofit center.

at Fort Bragg, where soldiers from the 528th awaited retrofit of some 375 vehicles.

Once the vehicles are retrofitted, soldiers can drive them at normal operating speeds, after completing several simple checks and displaying a black letter "D" in the vehicles' windshields so MPs know they're good to go, Simmons said.

As of Dec. 1, 40 percent, about 4,100, of the Army's FMTVs had been retrofitted, said COL Robert Lees, FMTV program manager at the U.S. Army Tank-automotive and Armaments Command in Warren, Mich. Retrofit had been completed in Korea; Hawaii; Fort Myer, Va.; and Fort Carson, Colo. Some 6,000 FMTVs remained to be retrofitted, Lees said.

Fixes were to be complete at Fort Hood, Texas; Fort Campbell, Ky.; Fort Stewart, Ga.; and Fort Benning, Ga., in February, Lees said. The target date for retrofit completion Armywide is in June.

At Fort Bragg, 90 percent of USASOC's vehicles had been fixed by December, Simmons said.

It's fair to say that special operations soldiers are perhaps among the toughest soldiers to convince that FMTVs are in the Army's — and their — best interest.

The 528th was the first on Fort Bragg to receive the original A0 models, in 1996. As such, "we've had all the headaches," said Bowles, referring to numerous glitches he and other unit soldiers experienced. Their "headaches" included alternator, battery and headlight failures.

Other problems — such as bent tail-light brackets, doors and tailgates — are primarily due to the large number of aluminum parts that replace the sturdier steel parts of the Army's old trucks.

"In Korea the alternator caught fire on one truck, and if we slammed the door too hard, the windshield popped out. We had to replace five windshields," said the 528th's SPC Justin Tracy.

In the Korea exercise, rear bumpers came off in some instances when drivers failed to raise the trucks' mud flaps before backing up. When the flaps are down, the wheels ride over them, putting so much pressure on the bumper it tears off, Tracy said.

A soldier from the Fort Bragg-based 528th Special Operations Support Battalion demonstrates the FMTV's hydraulically operated tire-replacement system.

On an exercise in Egypt, Bowles said, the tool boxes on nine FMTVs were broken into, with the locks still in place. Because of the lock design, perpetrators can break in with a screwdriver.

Other Fort Bragg soldiers said the truck is too high and they dislike using the vehicle's built-in ladder to climb into the cargo bay.

In the Army's old familiar trucks, soldiers used the steel loops under each taillight to pull themselves up into their vehicle's cargo area.

"There's a reason why the Army designed the FMTV high," said Simmons. "It's more like European-designed trucks, with the cab-over design, and built high off the ground to clear the terrain they'll encounter."

Bowles questioned why the truck design is such that when a .50-caliber ring mount is in place — in whichever vehicle is designated the gun truck — there's no room for a radio in the vehicle. "The vehicle that needs a radio the most is the gun truck," he said.

Simmons, who said every identified problem in the original A0 model will be fixed in the newer model Al, explained that contractors offered on-site corrections to the ring mount problem months ago, but some units have yet to schedule appointments to have the mount re-engineered.

Other soldiers cited difficulties communicating between soldiers in the cab and cargo area.

"You can't just look around behind you and talk to guys in the cargo bay like you could in the old trucks," said Bowles. A toggle switch has since been added, which allows soldiers in

the cargo area to buzz soldiers in the cab, alerting them to pull over.

"I've been mad at the FMTV a few times, believe me," Simmons said. "The biggest problem was getting someone to own up to identified flaws.

"But the manufacturer has done a good job of going to the field and talking to soldiers to find out what needs to be done," he said. "And the soldiers — like those at Fort Bragg — completely overwhelmed them with their recommendations."

What soldiers do like about the FMTV is its comfortable ride, a shorter turning radius that makes it more maneuverable, and the recently improved cargo roof. The pitch of the tarp-over-steel bow was increased and replaced tarp over aluminum, after a number of the cargo roofs collapsed under heavy loads *[see accompanying story]*.

While criticism of the new vehicles is difficult to ignore, Simmons said, "It's like a new model car that develops some problems when it's first offered to the public and has to be recalled."

"That's basically what we did," said Justice, "much like commercial auto manufacturers do after a new model vehicle has been introduced and is driven by thousands of people. Sometimes there are kinks to work out."

Justice assures soldiers that once corrections have been made, "FMTVs will be the best trucks soldiers have ever had."

Throughout the production and fielding process the company has gone to great lengths to listen to what soldiers are saying and change what needs to be changed, Simmons said.

SGT Robert Becker, shop foreman for the 528th's Company A at Fort Bragg, said: "We have a toll-free assistance number that puts us in touch with Stewart and Stevenson representatives who will come out and help us troubleshoot. And the vehicles with problems get fixed relatively quickly."

It's important to note that none of the A1 model FMTVs were yet in the field at this writing, so input from soldiers concerning the upgraded models was not available.

"The Army didn't just come up with design ideas for a new truck out of the blue," said Simmons, who's been part of the FMTV program since its inception. Getting out kinks is a natural part of ensuring soldiers have the best possible equipment, he said.

The old 800-series trucks, reputed to be among the best inventions ever for the Army, weren't without problems after initial fielding either, he said. In fact, "there were four versions of that vehicle. And when the Humvee was first introduced, broken bolts were a common problem.

"We had to take the whole engine out of the Humvee if the starter bolt broke off," Simmons said.

Simmons said he knows that some soldiers remain disgruntled about the FMTV, but he believes it's because they're uninformed about changes that have already been made or that are being made.

"What's not so widely known is that the Army's old 5-ton trucks were involved in 428 accidents, 128 of them roll-overs that killed 41 soldiers and 13 civilians, between 1992 and 1995," said LTC William Wheelehan, a Pentagon spokesman for FMTV. "When the Army chose to develop new trucks, safety was a key concern."

Noted difficulties aside, the original A0-model FMTV "demonstrated more than double the contract-specified reliability requirements for some variants," according to information published by Stewart and Stevenson. Those results prompted the Army to almost double the standards for the A1 model FMTVs, said Justice.

The contract required that the A1 operate for 5,500 miles without any hardware failure. During those tests, the vehicles recorded more than 13,000 failure-free miles.

"When I came in the Army 25 years ago, we bitched about the deuce-and-a-half that had been in the inventory for 15 years, and it was the most dependable vehicle," said CW4 Joseph Brown, the Reserve maintenance officer in Simmons shop at Fort Bragg. "The FMTV will find its place too — in time." □

The FMTV's cab-over design allows soldiers to work on the truck's operating systems without having to crawl beneath the vehicle.